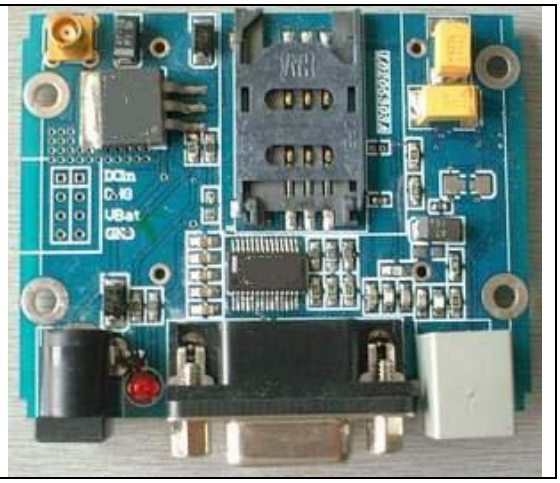
THE GSM/GPRS/CDMA MODEM
USER'S GUIDE
ME45

Contents



1 Introduction

1.1 Scope of this manual
1.2 Electrical characteristics
1.3 Mechanical characteristics
1.4 Features
- 1.4.1 Telephony
- 1.4.2 Short Message Service
- 1.4.3 Data
- 1.4.4 GSM Supplementary Service
- 1.4.5 Others

1.5 Interfaces

2 Hardware Description

2.1 Overview
2.2 The connector
2.3 Signal descriptions
- 2.3.1 Power supply
- 2.3.2 Serial link

2.4 Overview
2.5 Functional description

1 Introduction

The ME45 is designed to provide a quick and easy solution to systems that need to access GSM/GPRS/CDMA network/functionality. The modem is full type approved and ready to use. It employs the proven GSM WISMO™ technology from WAVECOM.

1.1 Scope of this manual

This document describes the hardware interface and the technical specification of the ME45. For information about controlling the modem via the AT commands, refer to the ‘ AT command manual’.

1.2 Electrical characteristics

- Dual band GSM modem E-GSM 900/1800 or E-GSM 900/1900
- Class 4: 2W for GSM 900
- Class 1: 1W for GSM 1800/1900
- Voice, SMS, Fax and data
- Tricodec: Full Rate, Enhanced Full Rate and Half Rate
- 3V SIM interface
- Power supply: 5V~12V @ 2A
- 300mA average current consumption
- 9mA in idle mode
- Operating temperature: -20°C to + 50°C
- Storage temperature: -35°C to +85°C

1.3 Mechanical characteristics

- Small size: 69mm(L) x 61mm(W) x 16mm(H)
- Mounting: 4 screw holes

1.4 Features

1.4.1 Telephony

- Telephony (TCH/FS) and Emergency calls
- Full Rate, Enhanced Full Rate and Half Rate
- DTMF functions

1.4.2 Short Message Service

- Point to Point MT and MO
- SMS Cell Broadcast

1.4.3 Data

- Data circuit asynchronous, transparent and non-transparent up to 14.4kbps
- Automatic fax group 3 (Class 1 and 2)
- Alternate speech and fax
- MNP2, V.42bis

GPRS packet data features

- GPRS class 2 / Class B
- Coding schemes CS1 to CS4
- Compliant with SMG31bis

1.4.4 GSM Supplementary Service

- Call Forwarding
- Call Barring

- Multi Party
- Call Waiting and Call Hold
- Calling Line Identity
- Advice of Charge
- USSD
- Closed User Group
- Explicit Call Transfer

1.4.5 Others

- ME + SIM phone book management
- Fixed Dialling Number
- SIM Toolkit Class 2
- SIM, network and service provider locks
- Real Time Clock
- Alarm management
- Software upgrade through Xmodem protocol
- UCS2 character set management

1.5 Interfaces

- Single Antenna Interface
- 3V only internal SIM interface
- RS232 Interface

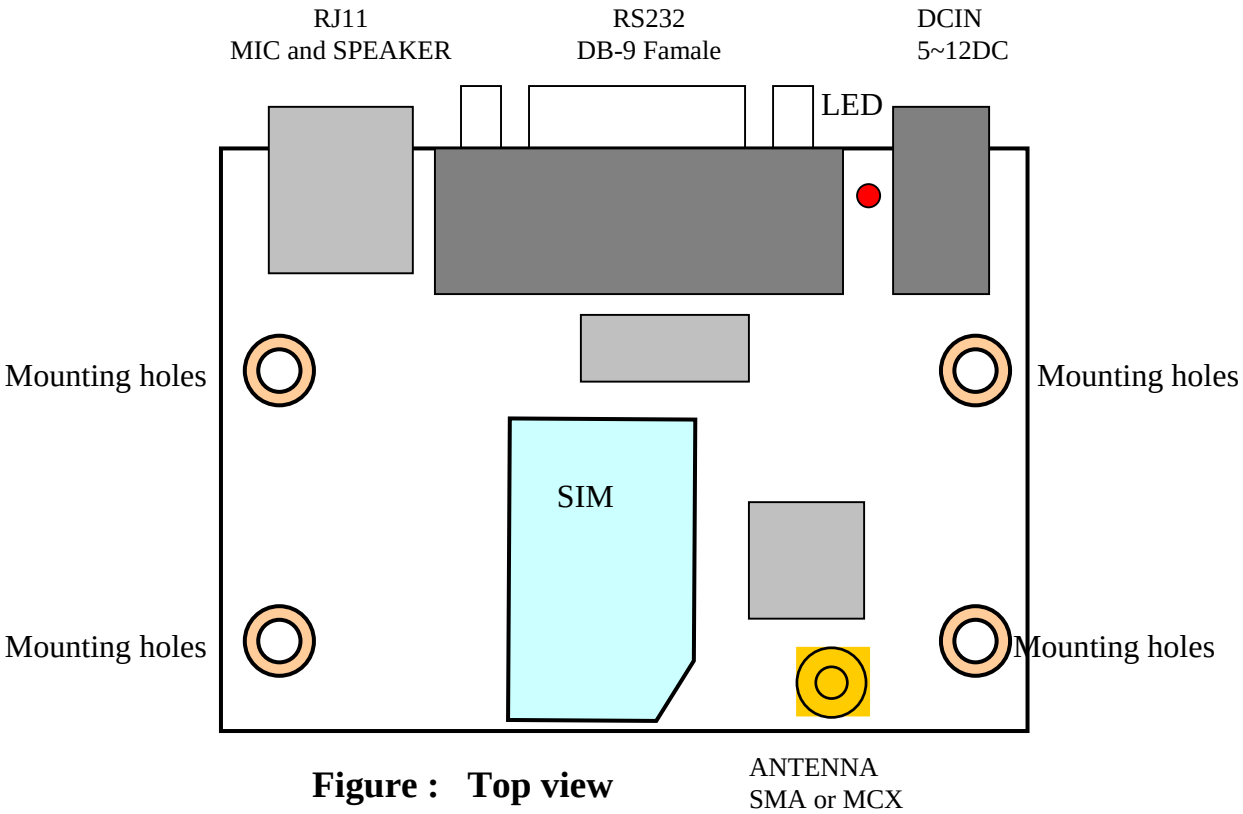


Figure : Top view

2 Hardware Description

2.1 Overview

The ME45 includes a Wavecom Wismo2C2/2D module, a SIM card holder , a DB-9 Famale header and a RJ11 and a RF connector.

2.2 The connector

Signal description

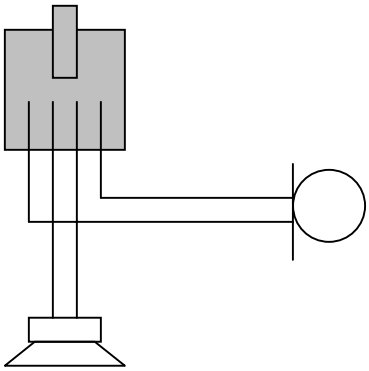
2.2.1 Power supply:

Power supply design is an important factor. The GSM modem transmits in burst sequences, therefore the power supply must be able to deliver high current peaks in short period of time.
Supply voltage = **5V ~12VDC, Center anode**
Supply current = 2 amperes.

2.2.2 Serial link

	Type	Description		Type	Description
1	DCD	RS232 interface, output	**6**	DSR	RS232 interface, output
2	RXD	RS232 interface, output	**7**	RTS	RS232 interface, input
3	TXD	RS232 interface, input	**8**	CTS	RS232 interface, output
4	DTR	RS232 interface, input	**9**	RI	RS232 interface, output
5	GND	GND			

2.2.3 MIC and SPEAKER



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